

DISPLAYS

FAQ

Q What is DVI and how can I use it?

A The digital video interface (DVI) is the highest-quality output from a PC and can be used only with digital displays, such as projectors and LCDs. The picture is sent digitally, so the display receives a perfect copy of what the PC generates with no interference. Older analogue displays such as CRT monitors are prone to interference, and the quality of the display cable can make a huge difference.

There are several versions of DVI. DVI-D is capable of outputting a digital picture only; DVI-I can also be used with an analogue monitor, although you'll need a DVI-to-D-sub converter. Finally, HDMI is a new home entertainment connector that carries sound as well as a digital picture. It is backwards-compatible with DVI using converters.

To use a digital signal, you need a device such as PC with an HDMI or DVI output, and a display with an HDMI or DVI input; check your manual for compatibility.

Lynley Oram

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SAMSUNG SyncMaster 226bw

★★★★★

£370 inc VAT

With its glossy black surround, the 22in widescreen SyncMaster 226bw looks gorgeous. It has a 2ms (grey-to-grey) response time, although in our experience there's little noticeable difference between monitors with 25ms or faster response times. It did well in our games test, with no ghosting no matter how fast the action.

The 226bw has both an HDCP-compliant DVI, for protected HD content when available, and D-sub connectors. It did well in our colour tests, producing vibrant, natural colours. Screen



SUMMARY

- ✓ Stylish design
- ✓ Good image quality
- ✗ Expensive

22in WIDESCREEN LCD 1,680x1,050 native resolution, 3,000:1 contrast ratio, 2ms response time (grey-to-grey), D-sub, DVI
PART CODE 226bw
SUPPLIER Samsung 01932 455000
DETAILS www.samsung.co.uk

illumination is even, and viewing angles are very good, so there's no loss in quality even at extreme angles. All our test patterns were displayed well and the picture was generally very sharp and finely detailed. Its native resolution of 1,680x1,050 means there's plenty of room for all your applications.

The SyncMaster 226bw is a great monitor, but Samsung's 215TW (see below) is better. Although smaller, it has the same native resolution and costs the same, but has S-video, composite and component inputs, so it can be used for home entertainment as well as with your PC.

Lynley Oram

NEC 175VXM+

★★★★★

£142 inc VAT



If you're building a budget PC, a standard 17in LCD such as NEC's 175VXM+ should do the job. It has the same native resolution of 1,280x1,024 as 19in displays, an average contrast ratio of 500:1 and both DVI and D-sub inputs. NEC also includes a DVI cable, which surprisingly few manufacturers do.

The 175VXM+ has a sturdy double-hinged stand that allows you to adjust the height of the screen from between 75mm and 115mm. Image quality was



SUMMARY

- ✓ Excellent picture quality
- ✓ DVI cable included
- ✗ Narrow viewing angles

17in LCD 1,280x1,024 resolution, 500:1 contrast ratio, 8ms response time, D-sub, DVI
PART CODE 175VXM+
SUPPLIER www.scan.co.uk
DETAILS www.nec-display

superb. Colours were bright, rich and natural. Our greyscale test is quite difficult for LCD monitors to reproduce, but the 175VXM+ did extremely well, producing smooth transitions from the darkest to lightest greys.

Viewing angles are poor, with a loss of contrast that's immediately noticeable as soon as you're not directly facing the centre of the display. However, with a screen this small it is unlikely that more than one person will be viewing it at a time.

If you don't need or can't afford a bigger monitor, the 175VXM+ is one we'd happily recommend.

Lynley Oram

Also consider...

SAMSUNG 215TW

★★★★★

£353 inc VAT

Samsung's 215TW is a top-quality monitor that's perfectly suited to home and work use. Viewing angles are excellent and the picture quality cannot be faulted. It has a comprehensive range of connections, including S-video, composite, component, DVI and D-sub. There's a picture-in-picture option, too, so you can watch DVDs while you work.

21in LCD 1,680x1,050 resolution, 8ms response time, 1,000:1 contrast ratio, D-sub, DVI, S-video, composite and component inputs
PART CODE SAMQDPWASQ
SUPPLIER www.pixmania.com
DETAILS www.samsung.co.uk
✓ Excellent picture quality ✗ Pricy
FULL REVIEW Sep 2006



IYYAMA X486S-B1

★★★★★

£194 inc VAT

Iiyama's X486S-B1 is a tastefully designed display. It has a reflective coating, which makes colours look richer and blacks look darker. An ambient light sensor automatically adjusts the monitor's brightness according to the room's light level, while an infrared sensor detects when you're in front of the monitor and turns it off to save power when you're not.

19in LCD 1,280x1,024 resolution, 700:1 contrast ratio, 2ms response time, D-sub, DVI, USB2 port PART CODE X486SB1
SUPPLIER www.savastore.com
DETAILS www.iiyama.co.uk
✓ Good picture quality ✗ Auto-brightness feature doesn't work very well
FULL REVIEW Feb 2007



HP LP2065

★★★★★

£304 inc VAT

HP's LP2065 looks classy, with a thin silver bezel and minimalist design. The screen can pivot, there's a four-port USB2 hub built in and it has two DVI inputs. Whites are pure and bright, and high-contrast images are impeccably reproduced. The screen is a little more expensive than most, but it's a price worth paying to get the best image quality.

20in LCD 1,600x1,200 native resolution, 2x DVI inputs, four-port USB2 hub PART CODE EF227AT
SUPPLIER www.pcwb.com
DETAILS www.hp.com/uk
✓ Good design; excellent brightness and contrast; handy USB2 hub
FULL REVIEW Aug 2006



SONY VPL-CS21

★★★★

£640 inc VAT

Sony's VPL-CS21 is a small, lightweight projector, which is designed to be easy to carry from meeting to meeting. It is well suited to a variety of lighting conditions, as its brightness of 2,100 ANSI lumens means the projector can be used in most offices without having to dim the lights.

What will really make this projector stand out in any meeting room is the motorised front stand. To tilt the projector up or down, you simply press a button on the remote or the side of the projector. This not only looks good, but makes it a lot easier to adjust the height of the projected image quickly and accurately without having to fiddle around with levers or dials.

It isn't often we get to see an LCD projector this small. The lightweight, ultra-portable projectors that usually arrive in our labs use single-chip DLP technology (see *How it Works*, page 160).

Unfortunately, the native resolution of 800x600 is a disappointment, particularly if you're giving presentations. It can accept higher resolutions, downscaling them to fit, and it's acceptable for resolutions of 1,280x1,024, but you still lose a lot of detail over a projector with a higher native resolution.

The VPL-CS21's image quality wasn't very good, either. Even after adjustment, colours in movie clips were muted, while still images lacked detail in the darker areas with oversaturated highlights that resulted in unnatural-looking hues.



There is no DVI connector, just a D-sub connector for attaching the projector to a PC. You can connect your DVD player's component outputs to the D-sub input, but you'll have to buy an adaptor as none is supplied. S-video and composite are also available for video devices. Both these inputs work adequately, although colours in our test movie weren't the best we've seen and straight lines on images appeared jagged, as the projector isn't very good at upscaling the image.

There is no noise control setting in this projector's menu. Compressed movie clips and the clips in our video signal-processing tests were noticeably grainier than those shown on projectors with this setting.

If you're looking for a portable projector on a tight budget, the VPL-CS21 is a good buy. However, its poor image quality and native resolution could cause problems. If portability isn't an issue, you can buy a larger projector with a resolution of 1,280x1,024 for the same price; if your budget can stretch, Dell's similar-sized 3400MP is much better quality.

Lynley Oram

SUMMARY

- ✓ Tiny
- ✓ Automatic tilt
- ✗ Poor image quality

LCD PROJECTOR 800x600 native resolution, 2,100 ANSI lumens, 300:1 contrast ratio, D-sub, S-video, composite, component (via adaptor), 1.9kg, 273x52x210mm
PART CODE VPL-CS21
SUPPLIER www.pcw.co.uk
DETAILS www.sony.co.uk

CHOOSING AN... LCD Monitor

Follow the steps to find your ideal specs

IMAGE SIZE: 17in

NATIVE RESOLUTION: 1,280x1,024

INPUTS: VGA

EXTRAS:

Recommended minimum in grey

1 LCD screens (also known as TFTs) offer a range of benefits over conventional CRT displays, including compact designs and sharp, straight-sided images. However, LCD technology also has its disadvantages. Image quality can deteriorate at acute viewing angles, and the picture can appear fuzzy at resolutions below the native one. LCDs sometimes suffer from defective or 'dead' pixels and may produce distortions when displaying finely textured patterns.

2 A basic 17in LCD monitor (one with the specification shown in grey above) costs from £135, although screens with higher viewing angles, better response times and higher contrast ratios can cost as much as £300 – these models avoid the pitfalls mentioned above.

3 All 17in LCD screens have a native resolution of 1,280x1,024 pixels, which is fine for most applications. If you want a larger viewing area, which is useful for creative software, a 19in LCD is necessary. These have the same native resolution and start at around £150. You'll need to spend around £250 to get a 20in model with a 1,600x1,200 resolution. For entertainment, you'll need a widescreen monitor; 19in models start at around £200.

4 A video graphics array (VGA) input means the display will work with any PC, but a digital video interface (DVI) input removes unnecessary digital-to-analogue conversion of the picture, potentially improving sharpness and colour accuracy while eliminating interference. A digital connection also automatically adjusts the picture perfectly; with an analogue connection you may have to use the auto adjust controls and fine-tune some settings to get a good picture.

A DVI-equipped graphics card is required for a digital input, but most graphics cards have a DVI connector.

5 Extras may include a USB hub, speakers, a microphone and even a TV tuner, which allows the display to double as a standalone TV.

DELL 3400MP

PRICE CUT!

★★★★★

£832 inc VAT and delivery

BEST BUY Dell's 3400MP is tiny, but with 1,500 ANSI lumens it's bright enough for use in a conference room. Colours were even and the brightness and contrast were excellent. It is ideal for use as a business projector. It's well priced, portable and good for presentations. It's also great if you want to take it home to watch movies.



DLP PROJECTOR 1,024x768 native resolution, 1,500 ANSI lumens, 2,100:1 contrast ratio PART CODE 305-3400MP
SUPPLIER Dell 08701 524699
DETAILS www.dell.co.uk
✓ Small and lightweight; low lamp running costs FULL REVIEW May 2006

LG 32LC2D

★★★★★

£590 inc VAT

PRICE CUT!

BEST BUY LG's 32LC2D produces beautiful, realistic pictures. Images from our HD movie clips were perfect and the TV displayed every detail flawlessly. Connecting to a PC is easy through D-sub or HDMI and the picture was brilliant. It's excellent value, with a wide range of connections.



32in LCD HD TV VGA, HDMI, component, three SCART, optical S/PDIF, digital tuner PART CODE 32LC2D
SUPPLIER www.savastore.co.uk
DETAILS <http://uk.lge.com> ✓ Superb all-round picture quality; good computer display FULL REVIEW Nov 2006

PANASONIC PT-AE900E

★★★★★

£1,182 inc VAT

BEST BUY The PT-AE900e is an accomplished home cinema projector. The three-LCD projector produces stunning images. The dynamic iris gives it an excellent contrast ratio of 5,500:1. It has a native resolution of 1,280x720, so it supports 720p High Definition video. This has everything that a budding home cinema user could want at an affordable price.



LCD PROJECTOR 1,280x720 native resolution, 1,100 ANSI lumens, 5,500:1 contrast ratio PART CODE PTAE900E
SUPPLIER www.amazon.co.uk
DETAILS www.panasonic.co.uk
✓ Inexpensive; excellent picture quality FULL REVIEW May 2006